WHAT IS CLAIMED IS:

1. An improved distributed Bragg reflector comprising:

a first portion comprising a first phase;

at least a second portion spaced apart from said first portion comprising a second phase, said phase being different from the first phase.

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2. The reflector of claim 1, wherein the second portion has a second phase opposite that of said first phase of said first portion .

3. The reflector of claim 1, wherein said spaced apart first portion and second portion are configured to maximize the coupling constant (κ) as evenly as possible across a selected tuning range.

4. A method for configuring a selected grating distributed Bragg reflector for use in a laser having an output within a specific region of bandwidth, the method comprising the steps of:

a) selecting a preferred κ for at least one wavelength of the specific region of the bandwidth that is to be used;

b) selecting a preferred tuning range for said reflector;

c) generating a sampling function that, when applied to the reflector, results in the closest fit to the desired average κ with the smallest amount of variation within the selected tuning range.

5. A method for configuring a selected grating distributed Bragg reflector for use in a laser having an output comprising at least one wavelength within a specific region of bandwidth, the method comprising the steps of:

a) selecting a preferred tuning range for said reflector;

b) determining an average κ for the at least one output wavelength of the specific region of the bandwidth that is to be used;

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c) generating a sampling function that, when applied to the reflector, results in the closest fit to the desired average K with the smallest amount of variation within the preferred tuning range.

6. The method of claim 5, wherein the at least one wavelength is a plurality of wavelengths.

7. The method of claim 5, further comprising the step of sampling the reflector in accordance with the sampling function.

8. The method of claim 4, wherein the at least one wavelength is a plurality of wavelengths.

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9. The method of claim 4, wherein the at least one wavelength is a plurality of wavelengths.

10. The method of claim 4, further comprising the step of sampling the reflector in accordance with the sampling function.

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